Excellent freestyle technique doesn't just make you look smooth in the water, it shaves time on the clock. Here's how much of an impact technique can have on race day.

Swimming fast is all about the fundamentals.

Work hard when you are at the pool. Swim with great technique.

When you boil down fast swimming to its simplest components, that's about it.

That said, reminders to nail the fundamentals each time you dive into the water for swim training are crucial.

After all, how many times have you been told to do something obvious in the water ("Don't pull on the lane rope!" or "Stop taking your teammates' kickboard!") and still kept doing it?

The fundamentals are so obvious that we often pass them over for other shinier aspects of performance, like obsessing over swimsuit fabrics, goggle lenses, or supplements.

Well, here's your daily reminder to spend more time swimming with killer technique each time you hit the pool.

HOW MUCH SWIM TECHNIQUE AFFECTS PERFORMANCE ON RACE DAY

Let's get right into the study.

A paper titled "Is Real-Time Poolside Assessment of Upper Limb Errors in Front Crawl Swimming Technique Reliable and Equivalent to Video Analysis?" took a group of 39 elite collegiate swimmers and analyzed their freestyle strokes.

The coaches and researchers assessed the freestyle technique of the 21 women and 18 men, all who had over a decade of competitive swimming experience, using a seven-point checklist of common freestyle technique errors.

Here's what they looked for when evaluating each swimmer's technique:

- **Arm recovery during the recovery phase**. Was the arm excessively bent, creating a finger-drag-type situation in the arm recovery (bad), or was the arm straightish and loose (good)?
- **Shoulder roll during the recovery phase**. Did swimmers have a flat or excessive shoulder roll (bad) or an optimal degree of rotation in the shoulders (good)?
- **Hand orientation during hand entry**. At the top of the stroke, when swimmers entered their hand into the water, did the swimmers use their fingertips to pierce the water (good) or did the thumbs lead the way (bad)?
- **Hand position during hand entry**. During the hand entry, did swimmers enter the water in a neutral position, with the hand in line with the shoulder (good), or did the hand enter the water crossing the center line (bad)?
- **Elbow position during pull phase**. When catching the water at the top of the stroke, did swimmers use a high elbow to pull more water (good) or did the elbow drop (bad)?
- **Hand path during pull phase**. When pulling themselves through the water, with the hand passing under the body, did swimmers pull back straight (good) or did the hand cross the body (bad)?
- **Head orientation**. Throughout all phases of the stroke, did swimmers had a neutral head position (good) or was the head tilted up (bad)?

After finger-clapping away at a calculator for a bit, and comparing the best times of the swimmers in competition, what did the researchers learn?

That swimmers with better technique were the ones putting up faster times on race day.

In fact, the study **found that 35% of the variance between slower swimmers and faster swimmers was due to technique.**

While the effects of swimming with good technique and how it impacts performance on race day should be bleedingly obvious, the "obvious" things aren't always what we focus on when we go to the pool.

Being able to attach a specific figure to the performance costs of poor technique might just be the thing to motivate you to swim with better technique today.

WRAPPING THINGS UP

Hey, I get it: There are some swimmers that just "get" the water.

They dive in, and within moments, they intuitively grab more water, position their bodies more efficiently, and glide through the water easily.

For the rest of us, work hard in terms of effort *and* with your technique.

Count your strokes. Swim mindfully. Use feedback from your coach and/or video review to assess your technique.

Aim to be technically excellent with every stroke and every lap, and the times and the results on the scoreboard will follow.